

Experiment Number: 10119 - 01

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/F 344/NCTR

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Furan

CAS Number: 110-00-9

Date Report Requested: 06/03/2014

Time Report Requested: 08:43:51

First Dose M/F: 09/07/09 / NA

Lab: NCTR

60 Week

NTP Study Number: C10119

Lock Date: 06/02/2014

Cage Range: ALL

Date Range: ALL

Reasons For Removal: ALL

Removal Date Range: ALL

Treatment Groups:	Include 009 0 Vehicle 60 wk	Include 010 0.02 Furan 60 wk	Include 011 0.044 Furan 60wk
	Include 012 0.092 Furan 60wk	Include 013 0.2 Furan 60 wk	Include 014 0.44 Furan 60 wk
	Include 015 0.92 Furan 60 wk	Include 016 2 Furan 60 wk	

Study Gender: Male

TDMSE Version: 3.0.2.0_001

PWG Approval Date: NONE

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FISCHER 344 RATS-NCTR RATS MALE 0 Vehicle 60 wk	DAY ON TEST																						
		0 4 2 2 0	0 2 3 2 0	0 4 2 2 0																			
ANIMAL ID																							* TOTALS
	0 0 0 0 2																						

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Intestine Large, Cecum	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	19
Intestine Large, Colon	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	19
Intestine Large, Rectum	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	19
Intestine Small, Duodenum	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	19
Intestine Small, Ileum	+	A	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	18
Intestine Small, Jejunum	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	19
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Angiectasis																							2 2.0
Basophilic Focus																							1
Granuloma		X																					12 1.3
Hepatodiaphragmatic Nodule	1		2	1	1	1	1	1	1	2	1	1	2	1	1	2	1	1	2				1
Mixed Cell Focus																							1
Tension Lipidosis																							1 3.0
Vacuolization Cytoplasmic	3																						11 1.5
Bile Duct, Biliary Tract, Hyperplasia	1	1	2	1	1	1	1	1	1	2	2	1	2	1	1	2	1	1	2				7 1.0
Mesentery		+																					4
Inflammation, Chronic		4																					1 4.0
Thrombosis		X																					1
Fat, Necrosis																							3 4.0

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X .. Lesion present

I .. Insufficient tissue

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Species/Strain: RATS/F 344/NCTR

Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE	DAY ON TEST																					
		0 4 2 2 0	0 2 3 2 0	0 4 2 2 0																		
0 Vehicle 60 wk	ANIMAL ID	0 0 0 0 0	0 0 0 1 1	0 0 1 1 1																		
		2 5 2	2 5 2	7 2	9 2	3 5	3 3	6 5	6 5	0 0	4 4	9 9	1 1	4 4	5 5	0 0	7 7	5 5	0 0	1 1	3 3	
Pancreas		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20	
Infiltration Cellular, Lymphocyte																						4 1.0
Acinus, Degeneration																						6 2.0
Salivary Glands		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20	
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20	
Stomach, Glandular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20	
CARDIOVASCULAR SYSTEM																						
Blood Vessel		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20	
Heart		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20	
Cardiomyopathy		1	1	3	1	2	2	1	2	2	2	2	2	1	3	2	2	2	2	1	20 1.8	
ENDOCRINE SYSTEM																						
Adrenal Cortex		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20	
Hypertrophy																					1 2.0	
Adrenal Medulla		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20	
Islets, Pancreatic		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20	
Parathyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20	
Pituitary Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20	
Pars Distalis, Cyst															X	X					2	

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First Dose M/F: 09/07/09 / NA

Lab: NCTR

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Exfoliated Germ Cell									2										3 2.0
Hypospermia									4										2 4.0
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Infiltration Cellular, Lymphocyte									1										2 1.5
Inflammation, Suppurative									4										5 3.6
Inflammation, Chronic Active		1	2		2	2	1	2	2		4	2	4		2		4		13 2.2
Duct, Ectasia						2	4				4	2			4		4		7 3.4
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Inflammation, Suppurative									1										13 1.4
Epithelium, Hyperplasia									1	2	2	1	1	1	1	3	1		3 2.0
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Lumen, Dilatation										3									1 3.0
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Interstitial Cell, Hyperplasia									1	2	1	1	2	3	1	2	2	1	14 1.6

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FISCHER 344 RATS-NCTR RATS MALE	DAY ON TEST																					
		0 4 2 0	0 2 3 0	0 4 2 0																		
ANIMAL ID		0 Vehicle 60 wk																				
		0 0 0 0	0 0 0 1	0 1 1 0	0 1 1 0	0 3 3 0	0 3 3 0	0 6 6 0	0 6 6 0	0 4 7 0	0 9 9 0	0 4 4 0	0 5 5 0	0 1 1 2	0 2 2 0	0 2 3 0	0 3 3 0	0 4 4 0	0 4 4 0	0 4 4 0	0 4 4 0	
		2 2 2	5 8 2	2 7 9	2 5 3	3 5 3	3 5 1	5 0 1	5 0 2	4 9 2	9 1 1	4 4 1	5 5 1	0 1 2	0 2 2	0 2 1	0 5 1	0 1 1	0 5 0	0 1 1	0 5 0	
		* TOTALS																				
Seminiferous Tubule, Degeneration		4								2							4	2				4 3.0

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Lymph Node	+																				1
Mediastinal, Hemorrhage	3																				1 3.0
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Hemorrhage																					1 2.0
Hyperplasia, Lymphoid																					1 2.0
Infiltration Cellular, Plasma Cell																					2 3.0
Sinus, Dilatation																					2 2.0
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Angiectasis	4																				1 4.0
Fibrosis	4																				1 4.0
Hemorrhage	4																				1 4.0
Necrosis	4																				1 4.0
Pigmentation																					2 3.5
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Atrophy	3	4	4	4	4	4	4	4	4	4	4	4	4	4	3	4	4	4	4	4	19 3.9

INTEGUMENTARY SYSTEM

Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	19
Galactocele													X								1

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Species/Strain: RATS/F 344/NCTR

Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE	DAY ON TEST																					
		0 4 2 0	0 2 3 0	0 4 2 0																		
ANIMAL ID		0 Vehicle 60 wk																				
		0 0 0 0	0 0 0 1	0 1 1 1	0 1 1 0	0 3 3 0	0 3 3 3	0 6 6 0	0 6 6 4	0 7 9 4	0 9 1 4	0 9 1 5	0 1 1 0	0 1 1 1	0 4 4 0	0 3 3 0	0 4 4 1	0 4 4 3	0 4 4 0	0 4 2 1	0 4 2 3	
		2 2 2 2	5 5 8 2	8 7 2 7	9 9 9 2	2 5 3 5	3 3 5 3	5 6 5 0	5 6 5 0	7 9 1 4	9 1 1 4	9 1 1 5	1 1 1 0	1 1 1 1								
		* TOTALS																				
	Alveolus, Dilatation	3																				1 3.0
	Skin	+																				20
	Cyst Epithelial Inclusion	X																				1
MUSCULOSKELETAL SYSTEM																						
	Bone	+																				1
	Bone, Femur	+																				20
	Skeletal Muscle	+																				1
	Hemorrhage	4																				1 4.0
	Necrosis	3																				1 3.0
NERVOUS SYSTEM																						
	Brain, Brain Stem	+																				20
	Compression	4																				1 4.0
	Brain, Cerebellum	+																				20
	Brain, Cerebrum	+																				20
RESPIRATORY SYSTEM																						
	Lung	+																				20
	Histiocytosis	2																				1 2.0
	Infiltration Cellular, Histiocyte	1																				3 1.0
	Inflammation, Chronic Active	3																				1 3.0

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First Dose M/F: 09/07/09 / NA

Species/Strain: RATS/F 344/NCTR

Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE 0.02 Furan 60 wk	DAY ON TEST												
		0 4 2 0	0 4 2 0	0 4 2 1	0 4 2 0								
ANIMAL ID													* TOTALS
		0 1 1 7 1	0 1 3 0 1	2 3 8 5 2	3 3 1 6 1	3 3 0 6 2	4 4 3 3 1	4 4 3 2 2	4 4 4 2 2	4 4 4 2 1	4 4 4 2 1	4 4 4 2 1	

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	10
Liver	+	+	+	+	+	+	+	+	+	+	+	+	10
Angiectasis	2												1 2.0
Granuloma	1	2	1	2	1	1	1	1	1	2			9 1.3
Vacuolization Cytoplasmic	1	2	1	1	1	2	2	2	2	2			8 1.5
Bile Duct, Biliary Tract, Hyperplasia	1												3 1.0
Hepatocyte, Necrosis													1 1.0
Mesentery													1
Fat, Necrosis													1 4.0
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	10
Acinar Cell, Hyperplasia													1 4.0
Acinus, Degeneration													2 2.0

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FISCHER 344 RATS-NCTR RATS MALE 0.02 Furan 60 wk	DAY ON TEST												
		0 4 2 0											
ANIMAL ID	0 1 1 7 1	0 1 3 0 1	0 2 8 2 2	0 3 1 5 1	0 3 0 6 1	0 3 3 3 2	0 4 3 2 1	0 4 4 2 2	0 4 4 2 2	0 4 4 2 2	0 4 4 2 2	0 4 4 2 2	
* TOTALS													
Salivary Glands		+	+	+	+	+	+	+	+	+	+		10
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+		10
Stomach, Glandular		+	+	+	+	+	+	+	+	+	+		10
CARDIOVASCULAR SYSTEM													
Blood Vessel		+	+	+	+	+	+	+	+	+	+		10
Heart		+	+	+	+	+	+	+	+	+	+		10
Cardiomyopathy		3	2	1	2	1	1	1	1	2			8 1.6
ENDOCRINE SYSTEM													
Adrenal Cortex		+	+	+	+	+	+	+	+	+	+		10
Vacuolization Cytoplasmic													1 2.0
Adrenal Medulla		+	+	+	+	+	+	+	+	+	+		10
Islets, Pancreatic		+	+	+	+	+	+	+	+	+	+		10
Parathyroid Gland		+	+	+	+	+	+	+	+	+	+		10
Pituitary Gland		+	+	+	+	+	+	+	+	+	+		10
Pars Distalis, Cyst	X												1
Pars Distalis, Hyperplasia	1	2	1	2	1	1	1	1	1	1	1		7 1.3
Thyroid Gland		+	+	+	+	+	+	+	+	+	+		10
C-cell, Hyperplasia	1		1		2		1	1	1				5 1.2

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FISCHER 344 RATS-NCTR RATS MALE 0.02 Furan 60 wk	DAY ON TEST	0	0	0	0	0	0	0	0	0	0
		4	4	4	4	4	4	4	2	4	
	ANIMAL ID	2	2	2	2	2	2	2	6	2	
		0	0	0	0	1	0	0	7	1	
		0	0	0	0	0	0	0	0	0	
		1	1	1	2	3	3	4	4	4	
		1	3	8	1	0	3	7	3	4	
		7	0	2	2	5	6	3	2	2	
		1	1	2	1	2	1	2	1	2	

*** TOTALS****GENERAL BODY SYSTEM**

NONE

GENITAL SYSTEM

Epididymis

Exfoliated Germ Cell

Hypospерmia

+	+	+	+	+	+	+	+	+	+	+	10

1 2.0

1 3.0

Preputial Gland

Inflammation, Suppurative

Inflammation, Chronic Active

Acinus, Hyperplasia

Duct, Ectasia

+	+	+	+	+	+	+	+	+	+	+	10

4 3.0

6 2.0

1 2.0

2 3.0

Prostate

Infiltration Cellular, Lymphocyte

Inflammation, Suppurative

+	+	+	+	+	+	+	+	+	+	+	10

1 1.0

7 2.0

Seminal Vesicle

+	+	+	+	+	+	+	+	+	+	+	10

8 1.9

2 3.0

Testes

Interstitial Cell, Hyperplasia

Seminiferous Tubule, Degeneration

+	+	+	+	+	+	+	+	+	+	+	10

1 2.0

2 3.0

HEMATOPOIETIC SYSTEM

Bone Marrow

Myeloid Cell, Hyperplasia

+	+	+	+	+	+	+	+	+	+	+	10

1 2.0

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		0 4 2 0	0 4 2 0	0 4 2 0									
ANIMAL ID	0 1 1 7 1	0 1 3 0 1	0 1 8 2 2	0 2 1 2 1	0 3 0 5 2	0 3 3 6 1	0 3 7 3 2	0 4 3 2 1	0 4 4 2 2	0 4 4 2 2	0 4 2 1		
* TOTALS													
Lymph Node, Mandibular	+ + + + + + + + + + +												
Hyperplasia, Lymphoid													
Infiltration Cellular, Plasma Cell													
Sinus, Dilatation													
Lymph Node, Mesenteric	+ + + + + + + + + + +												
Hyperplasia, Lymphoid													
Spleen	+ + + + + + + + + + +												
Hematopoietic Cell Proliferation													
Thymus	+ + + + + + + + + + +												
Atrophy	4 4 4 3 3 2 4 4												
INTEGUMENTARY SYSTEM													
Mammary Gland	+ + + + + + + + + + +												
Alveolus, Dilatation													
Skin	+ + + + + + + + + + +												
MUSCULOSKELETAL SYSTEM													
Bone, Femur	+ + + + + + + + + + +												
NERVOUS SYSTEM													
Brain, Brain Stem	+ + + + + + + + + + +												
Compression													

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2) Mild 4) Marked

Experiment Number: 10119 - 01

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 06/03/2014

Test Type: CHRONIC

Furan

Time Report Requested: 08:43:51

Route: GAVAGE

CAS Number: 110-00-9

First Dose M/F: 09/07/09 / NA

Species/Strain: RATS/F 344/NCTR

Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE 0.02 Furan 60 wk	DAY ON TEST	0	0	0	0	0	0	0	0	0	0
		4	4	4	4	4	4	4	2	4	
	ANIMAL ID	2	2	2	2	2	2	2	6	2	
		0	0	0	0	1	0	0	7	1	
		0	0	0	0	0	0	0	0	0	
		1	1	1	2	3	3	4	4	4	
		1	3	8	1	0	3	7	3	4	
		7	0	2	2	5	6	3	2	2	
		1	1	2	1	2	1	2	1	2	
											* TOTALS
Brain, Cerebellum		+	+	+	+	+	+	+	+	+	10
Brain, Cerebrum		+	+	+	+	+	+	+	+	+	10
RESPIRATORY SYSTEM											
Lung		+	+	+	+	+	+	+	+	+	10
Nose		+	+	+	+	+	+	+	+	+	10
Trachea		+	+	+	+	+	+	+	+	+	10
SPECIAL SENSES SYSTEM											
Eye		+	+	+	+	+	+	+	+	+	10
Harderian Gland		+	+	+	+	+	+	+	+	+	10
URINARY SYSTEM											
Kidney		+	+	+	+	+	+	+	+	+	10
Hydronephrosis											1 1.0
Nephropathy		2	3	2	3	4	2	2	3	1	3 2.5
Urinary Bladder		+	+	+	+	+	+	+	+	+	10

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

M .. Missing tissue

X .. Lesion present

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Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE 0.044 Furan 60wk	ANIMAL ID	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	
		4	4	4	4	4	4	4	4	4	4	4	
		2	2	2	2	2	2	2	2	2	2	2	
		0	0	0	0	0	1	0	0	0	0	1	
		0	0	0	1	1	2	2	3	3	4	4	
		0	8	2	7	0	9	6	8	4	5	5	
		4	7	6	8	3	4	3	4	5	3	3	
		2	1	2	2	1	1	1	1	1	2		
		* TOTALS											

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	10
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	10
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	10
Liver	+	+	+	+	+	+	+	+	+	+	+	+	10
Granuloma	1	2	2	1	1	2	2	1	1				9 1.4
Mixed Cell Focus													1
Tension Lipidosis	4												2 3.0
Vacuolization Cytoplasmic	2	2	1	2	2	1	2	2	1	2			10 1.7
Bile Duct, Biliary Tract, Hyperplasia													1 2.0
Mesentery													1
Fat, Necrosis													1 4.0
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	10
Acinus, Degeneration													1 1.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	10

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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CAS Number: 110-00-9

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Species/Strain: RATS/F 344/NCTR

Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE 0.044 Furan 60wk	DAY ON TEST ANIMAL ID	0	0	0	0	0	0	0	0	0	0
		4	4	4	4	4	4	4	4	4	4
		2	2	2	2	2	2	2	2	2	2
		0	0	0	0	0	1	0	0	0	1
		0	0	0	1	1	2	2	3	3	4
		0	0	8	2	7	0	9	6	8	4
		4	7	6	8	3	4	3	4	5	5
		2	1	2	2	1	1	1	1	1	2
		* TOTALS									
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+
Stomach, Glandular		+	+	+	+	+	+	+	+	+	+
CARDIOVASCULAR SYSTEM											
Blood Vessel		+	+	+	+	+	+	+	+	+	+
Heart		+	+	+	+	+	+	+	+	+	+
Cardiomyopathy		1	2	1	1	1	2		1	2	1
Endocardium, Hyperplasia											
ENDOCRINE SYSTEM											
Adrenal Cortex		+	+	+	+	+	+	+	+	+	+
Adrenal Medulla		+	+	+	+	+	+	+	+	+	+
Islets, Pancreatic		+	+	+	+	+	+	+	+	+	+
Parathyroid Gland		+	+	+	+	+	+	+	+	+	+
Pituitary Gland		+	+	+	+	+	+	+	+	+	+
Pars Distalis, Cyst							X				
Pars Distalis, Hyperplasia								1		2	2
Thyroid Gland		+	+	+	+	+	+	+	+	+	+
C-cell, Hyperplasia		1	1	1	1	1	1	1	1	1	2

GENERAL BODY SYSTEM

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Lab: NCTR

FISCHER 344 RATS-NCTR RATS MALE 0.044 Furan 60wk	DAY ON TEST	0	0	0	0	0	0	0	0	0	0
		4	4	4	4	4	4	4	4	4	4
	ANIMAL ID	2	2	2	2	2	2	2	2	2	2
		0	0	0	0	0	1	0	0	0	1
		0	0	0	1	1	2	2	3	3	4
		0	0	8	2	7	0	9	6	8	4
		4	7	6	8	3	4	3	4	5	5
		2	1	2	2	1	1	1	1	1	2

*** TOTALS**

NONE

GENITAL SYSTEM

Epididymis

+ + + + + + + + + + 10

Preputial Gland

+ + + + + + + + + + 10

Inflammation, Suppurative

3 1 3 3 2.3

Inflammation, Chronic Active

7 2 0 7 2.0

Duct, Ectasia

1 2 2 2 1 2 0 2.0

Prostate

+ + + + + + + + + + 10

Inflammation, Suppurative

3 1 2 2 1 3 1 1.7

Inflammation, Chronic Active

2 1 1 1 2 1 2 1 1.5

Seminal Vesicle

+ + + + + + + + + + 10

Testes

+ + + + + + + + + + 10

Interstitial Cell, Hyperplasia

1 1 2 1 1 2 1 2 3 2 10 1.6

HEMATOPOIETIC SYSTEM

Bone Marrow

+ + + + + + + + + + 10

Lymph Node, Mandibular

+ + + + + + + + + + 10

Sinus, Dilatation

2 2 2 2 2 2 2 2 2 2 2 2.0

Lymph Node, Mesenteric

+ + + + + + + + + + 10

Sinus, Dilatation

3 3 1 3.0

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Species/Strain: RATS/F 344/NCTR

Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
0.044 Furan 60wk | ANIMAL ID | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
|---|-----------|-----------------------|---------------------|---|---|---|---|---|---|---|---|----|--------|--|
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | | |
| | | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | | |
| | | 0 | 8 | 2 | 7 | 0 | 9 | 6 | 8 | 4 | 5 | 5 | | |
| | | 4 | 7 | 6 | 8 | 3 | 4 | 3 | 4 | 5 | 3 | 3 | | |
| | | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | | | |
| | | | * TOTALS | | | | | | | | | | | |
| | | Spleen | + + + + + + + + + + | | | | | | | | | | 10 | |
| | | Pigmentation | | | | | | 4 | | | | | 1 4.0 | |
| | | Thymus | + + + + + + + + + + | | | | | | | | | | 10 | |
| | | Atrophy | 4 4 4 4 4 4 4 4 4 4 | | | | | | | | | | 10 4.0 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | |
| Mammary Gland | | M + + + + + + + + + + | | | | | | | | | | 9 | | |
| Galactocele | | X | | | | | | | | | | 1 | | |
| Skin | | + + + + + + + + + + | | | | | | | | | | 10 | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | |
| Bone, Femur | | + + + + + + + + + + | | | | | | | | | | 10 | | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | |
| Brain, Brain Stem | | + + + + + + + + + + | | | | | | | | | | 10 | | |
| Brain, Cerebellum | | + + + + + + + + + + | | | | | | | | | | 10 | | |
| Brain, Cerebrum | | + + + + + + + + + + | | | | | | | | | | 10 | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | |
| Lung | | + + + + + + + + + + | | | | | | | | | | 10 | | |
| Nose | | + + + + + + + + + + | | | | | | | | | | 10 | | |

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Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
0.044 Furan 60wk | ANIMAL ID | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|---|-----------|-------------|---------------------|---|---|---|---|---|---|---|---|---|----|
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | |
| | | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | |
| | | 0 | 8 | 2 | 7 | 0 | 9 | 6 | 8 | 4 | 5 | | |
| | | 4 | 7 | 6 | 8 | 3 | 4 | 3 | 4 | 5 | 3 | | |
| | | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 2 | | |
| | | | * TOTALS | | | | | | | | | | |
| | | Trachea | + + + + + + + + + + | | | | | | | | | | 10 |

| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | |
|-----------------------------------|---------------------|---|--|--|--|--|--|--|--|--|--|--|-------|
| Eye | + + + + + + + + + + | | | | | | | | | | | | 10 |
| Harderian Gland | + + + + + + + + + + | | | | | | | | | | | | 10 |
| Infiltration Cellular, Lymphocyte | 2 | 1 | | | | | | | | | | | 2 1.5 |
| Acinus, Degeneration | 2 | | | | | | | | | | | | 1 2.0 |

| URINARY SYSTEM | | | | | | | | | | | | | |
|-----------------------|---------------------|---|---|---|---|---|---|---|---|---|--|--|--------|
| Kidney | + + + + + + + + + + | | | | | | | | | | | | 10 |
| Nephropathy | 2 | 3 | 3 | 2 | 3 | 2 | 1 | 3 | 3 | 3 | | | 10 2.5 |
| Polyarteritis | | | | | | | | 2 | | | | | 1 2.0 |
| Urinary Bladder | + + + + + + + + + + | | | | | | | | | | | | 10 |

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Species/Strain: RATS/F 344/NCTR

Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
0.092 Furan 60wk | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---|-------------|---|---|---|---|---|---|---|---|---|---|
| | | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 |
| | ANIMAL ID | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 3 | 4 | 4 |
| | | 2 | 9 | 2 | 5 | 6 | 3 | 1 | 0 | 2 | 5 |
| | | 7 | 7 | 3 | 1 | 8 | 9 | 6 | 1 | 5 | 8 |
| | | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 2 |

*** TOTALS****ALIMENTARY SYSTEM**

| | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|-------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Chronic Active | | | | | | | | | | | | 1 2.0 |
| Mucosa, Hyperplasia | | | | | | | | | | | | 1 4.0 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Angiectasis | | | | | | | | | | | | 2 2.5 |
| Granuloma | 1 | 1 | 2 | | | | 2 | | 2 | | | 6 1.5 |
| Tension Lipidosis | 2 | | | | | | | | | | | 1 2.0 |
| Vacuolization Cytoplasmic | 1 | 2 | 2 | | | 2 | 1 | | 2 | | | 6 1.7 |
| Bile Duct, Biliary Tract, Hyperplasia | | | | | | | 1 | 1 | | | | 2 1.0 |
| Hepatocyte, Necrosis | | | | | | | | | 1 | | | 1 1.0 |
| Periportal, Cytoplasmic Alteration | | | | | | 2 | | | | | | 1 2.0 |
| Mesentery | + | | | | | + | | | | | | 2 |
| Fat, Necrosis | | 4 | | | | 3 | | | | | | 2 3.5 |

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 Species/Strain: RATS/F 344/NCTR

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 Furan
 CAS Number: 110-00-9

Date Report Requested: 06/03/2014
 Time Report Requested: 08:43:51
 First Dose M/F: 09/07/09 / NA
 Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
0.092 Furan 60wk | DAY ON TEST
ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|--------------------------|---|---|---|---|---|---|---|---|---|--------|
| | | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 |
| | | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2 |
| Pancreas | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Acinus, Degeneration | | 0 | 0 | 1 | 1 | 1 | 2 | 3 | 4 | 4 | 4 |
| Salivary Glands | | 2 | 9 | 2 | 5 | 6 | 3 | 1 | 0 | 2 | 5 |
| Stomach, Forestomach | | 7 | 7 | 3 | 1 | 8 | 9 | 6 | 1 | 5 | 8 |
| Stomach, Glandular | | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 2 |
| * TOTALS | | | | | | | | | | | |
| Pancreas | | + | + | + | + | + | + | + | + | + | 10 |
| Acinus, Degeneration | | 1 | | | | 1 | 1 | | | | 3 1.0 |
| Salivary Glands | | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Forestomach | | + | + | + | + | + | + | + | + | + | 10 |
| Stomach, Glandular | | + | + | + | + | + | + | + | + | + | 10 |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | |
| Blood Vessel | | + | + | + | + | + | + | + | + | + | 10 |
| Heart | | + | + | + | + | + | + | + | + | + | 10 |
| Cardiomyopathy | | 1 | 1 | 3 | 2 | 1 | 2 | 2 | 2 | 2 | 10 1.8 |
| ENDOCRINE SYSTEM | | | | | | | | | | | |
| Adrenal Cortex | | + | + | + | + | + | + | + | + | + | 10 |
| Adrenal Medulla | | + | + | + | + | + | + | + | + | + | 10 |
| Islets, Pancreatic | | + | + | + | + | + | + | + | + | + | 10 |
| Parathyroid Gland | | + | + | + | + | + | + | + | + | + | 10 |
| Pituitary Gland | | + | + | + | + | + | + | + | + | + | 10 |
| Pars Distalis, Cyst | | | | | | | | X | | X | |
| Pars Distalis, Hyperplasia | | | | | | | | 2 | 2 | 3 | 2 2.3 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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I .. Insufficient tissue

M .. Missing tissue

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Furan

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CAS Number: 110-00-9

First Dose M/F: 09/07/09 / NA

Species/Strain: RATS/F 344/NCTR

Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
0.092 Furan 60wk | ANIMAL ID | DAY ON TEST | | | | | | | | | | | | * TOTALS | |
|---|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|----------|--|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | |
| | | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 3 | 4 | 4 | 4 | 4 | | |
| | | 2 | 9 | 2 | 5 | 6 | 3 | 1 | 0 | 2 | 5 | 5 | 5 | | |
| | | 7 | 7 | 3 | 1 | 8 | 9 | 6 | 1 | 5 | 8 | 8 | 8 | | |
| | | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | | |
| | | * TOTALS | | | | | | | | | | | | | |
| Thyroid Gland | | + | + | + | + | + | + | + | + | + | + | + | + | 10 | |
| C-cell, Hyperplasia | | 1 | 1 | 1 | 1 | 2 | | 2 | | | | | | 6 1.3 | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Suppurative | 4 | | | | | | | 3 | | 2 | | | 3 3.0 |
| Inflammation, Chronic Active | | 2 | 2 | 2 | 2 | 2 | 1 | | 3 | | | | 7 2.0 |
| Duct, Ectasia | 4 | | 2 | | | | | 3 | | 3 | | | 4 3.0 |
| Epithelium, Hyperplasia | | | | | | | | 4 | | | | | 1 4.0 |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Suppurative | 1 | 2 | | 1 | 2 | 1 | 2 | 2 | 1 | 1 | | | 9 1.4 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Interstitial Cell, Hyperplasia | 1 | 2 | 3 | | 2 | 1 | 2 | 2 | 2 | | | | 8 1.9 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Myeloid Cell, Hyperplasia | | | | 2 | | | | | | | | | 1 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

M .. Missing tissue

X .. Lesion present

A .. Autolysis precludes evaluation

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1) Minimal 3) Moderate

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Experiment Number: 10119 - 01

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 06/03/2014

Test Type: CHRONIC

Furan

Time Report Requested: 08:43:51

Route: GAVAGE

CAS Number: 110-00-9

First Dose M/F: 09/07/09 / NA

Species/Strain: RATS/F 344/NCTR

Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
0.092 Furan 60wk | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---|-------------|-----------------|---|---|---|---|---|---|---|---|-------|
| | | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 |
| FISCHER 344 RATS-NCTR RATS
MALE
0.092 Furan 60wk | ANIMAL ID | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FISCHER 344 RATS-NCTR RATS
MALE
0.092 Furan 60wk | ANIMAL ID | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 3 | 4 | 4 |
| | | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 3 | 4 | 4 |
| FISCHER 344 RATS-NCTR RATS
MALE
0.092 Furan 60wk | ANIMAL ID | 2 | 9 | 2 | 5 | 6 | 3 | 1 | 0 | 2 | 5 |
| | | 7 | 7 | 3 | 1 | 8 | 9 | 6 | 1 | 5 | 8 |
| FISCHER 344 RATS-NCTR RATS
MALE
0.092 Furan 60wk | ANIMAL ID | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 2 |
| | | * TOTALS | | | | | | | | | |
| Lymph Node, Mandibular | | + | + | + | + | + | + | + | + | + | 10 |
| Lymph Node, Mesenteric
Hyperplasia, Lymphoid | | + | + | + | + | + | + | + | + | + | 10 |
| | | | | | 2 | 3 | | | | | 2 2.5 |
| Spleen | | + | + | + | + | + | + | + | + | + | 10 |
| Thymus
Atrophy | | + | + | + | + | + | + | + | + | + | 10 |
| | | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 4 |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | |
| Mammary Gland
Galactocele | | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Chronic Active | | | | | X | | | | | | 1 |
| | | | | | 2 | | | | | | 1 2.0 |
| Skin | | + | + | + | + | + | + | + | + | + | 10 |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | |
| Bone, Femur | | + | + | + | + | + | + | + | + | + | 10 |
| NERVOUS SYSTEM | | | | | | | | | | | |
| Brain, Brain Stem | | + | + | + | + | + | + | + | + | + | 10 |
| Brain, Cerebellum | | + | + | + | + | + | + | + | + | + | 10 |
| Brain, Cerebrum | | + | + | + | + | + | + | + | + | + | 10 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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Furan

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Species/Strain: RATS/F 344/NCTR

Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
0.092 Furan 60wk | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---|-------------|-----------------|---|---|---|---|---|---|---|---|---|
| | | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 |
| | ANIMAL ID | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 1 | 1 | 1 | 2 | 3 | 4 | 4 | 4 |
| | | 2 | 9 | 2 | 5 | 6 | 3 | 1 | 0 | 2 | 5 |
| | | 7 | 7 | 3 | 1 | 8 | 9 | 6 | 1 | 5 | 8 |
| | | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | 2 |
| | | * TOTALS | | | | | | | | | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|-------|
| Lung | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Histiocytosis | | | | | | | | | | | | 1 1.0 |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | 2 1.0 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Suppurative | | | | | | | | | | | | 1 1.0 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | 10 |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|-------|
| Eye | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | 1 2.0 |

URINARY SYSTEM

| | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|--------|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Hydronephrosis | | | | | | | | | | | | 2 2.0 |
| Nephropathy | | | | | | | | | | | | 10 2.4 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | 10 |

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Furan

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Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
0.2 Furan 60 wk | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|-------------|---|---|---|---|---|---|---|---|---|---|
| | | 4 | 4 | 4 | 1 | 4 | 4 | 4 | 4 | 4 | 4 |
| | ANIMAL ID | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |
| | | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 3 | 4 | 4 |
| | | 3 | 3 | 5 | 9 | 0 | 5 | 6 | 5 | 1 | 2 |
| | | 4 | 5 | 3 | 4 | 7 | 7 | 0 | 8 | 7 | 0 |
| | | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 |

*** TOTALS****ALIMENTARY SYSTEM**

| | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|-------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Hemorrhage | | | | | | | | | | | | 1 3.0 |
| Inflammation, Suppurative | | | | | | | | | | | | 1 2.0 |
| Ulcer | | | | | | | | | | | | 1 4.0 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Clear Cell Focus | | | | | | | | | | | | 1 |
| Granuloma | 1 | 2 | 2 | | 1 | 1 | 2 | | 1 | 1 | | 8 1.4 |
| Hepatodiaphragmatic Nodule | | | | X | | | | | | | | 1 |
| Mixed Cell Focus | | | X | | | | | | | | | 1 |
| Tension Lipidosis | | | | | | | 2 | 3 | | | | 2 2.5 |
| Vacuolization Cytoplasmic | 1 | 1 | 2 | | 2 | 1 | 1 | 1 | 2 | 1 | | 9 1.3 |
| Bile Duct, Biliary Tract, Hyperplasia | 1 | | | | | | | | | | | 1 1.0 |
| Bile Duct, Subcapsular, Hyperplasia | | | | | | | | | | | | 1 1.0 |
| Hepatocyte, Necrosis | | | | | | | | | | | | 1 1.0 |
| Subcapsular, Fibrosis | 1 | 1 | | | | | 1 | | 1 | | | 4 1.0 |

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+ .. Tissue examined microscopically

M .. Missing tissue

X .. Lesion present

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| FISCHER 344 RATS-NCTR RATS
MALE
0.2 Furan 60 wk | DAY ON TEST | | | | | | | | | | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|-------|-------|
| | | 0
4
2
0 | 0
4
2
0 | 0
1
3
0 | 0
4
2
0 | 0
4
2
1 | 0
4
2
0 | 0
4
2
0 | 0
4
2
1 | 0
4
2
1 | 0
4
2
1 | 0
4
2
1 | | |
| ANIMAL ID | 0
0
3
4
2 | 0
0
5
5
1 | 0
1
9
3
2 | 0
2
0
4
2 | 0
2
5
3
2 | 0
2
6
7
2 | 0
3
5
8
1 | 0
3
5
8
2 | 0
4
1
7
1 | 0
4
1
8
2 | 0
4
1
7
1 | 0
4
2
0 | | |
| Subcapsular, Inflammation, Chronic | 1 | 1 | 1 | | | | 1 | 1 | 1 | 1 | 1 | | 8 1.0 | |
| Subcapsular, Pigmentation | 1 | 1 | 1 | | | | 1 | 1 | 1 | 1 | 1 | | 8 1.0 | |
| Pancreas | +
+
+ | | 10 | |
| Infiltration Cellular, Lymphocyte | | | | | | | 1 | | | | | | | 1 1.0 |
| Acinus, Degeneration | | | | | | | | 2 | 1 | | | | | 3 2.0 |
| Salivary Glands | +
+
+ | | 10 | |
| Stomach, Forestomach | +
+
+ | | 10 | |
| Stomach, Glandular | +
+
+ | | 10 | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | |
| Blood Vessel | +
+
+ | | 10 | |
| Heart | +
+
+ | | 10 | |
| Cardiomyopathy | 1
1
1 | 2
2
2 | | 9 1.6 | |
| Adventitia, Inflammation, Suppurative | | | | | | | | | | | | | 1 3.0 | |
| Adventitia, Necrosis | | | | | | | | | | | | | 1 4.0 | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | |
| Adrenal Cortex | +
+
+ | | 10 | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | 1 2.0 | |
| Adrenal Medulla | +
+
+ | | 10 | |
| Islets, Pancreatic | +
+
+ | | 10 | |

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| FISCHER 344 RATS-NCTR RATS
MALE
0.2 Furan 60 wk | DAY ON TEST
ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|--------------------------|-----------------|---|---|---|---|---|---|---|---|-------|
| | | 4 | 4 | 4 | 1 | 4 | 4 | 4 | 4 | 4 | 4 |
| | | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |
| | | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 3 | 4 | 4 |
| | | 3 | 3 | 5 | 9 | 0 | 5 | 6 | 5 | 1 | 2 |
| | | 4 | 5 | 3 | 4 | 7 | 7 | 0 | 8 | 7 | 0 |
| | | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 |
| | | * TOTALS | | | | | | | | | |
| Parathyroid Gland | | + | + | + | + | + | + | + | + | + | 10 |
| Pituitary Gland | | + | + | + | + | + | + | + | + | + | 10 |
| Pars Distalis, Cyst | | | | | | X | | | | | 1 |
| Pars Distalis, Hyperplasia | | 2 | 2 | 2 | 2 | | | | | | 5 2.0 |
| Thyroid Gland | | + | + | + | + | + | + | + | + | + | 10 |
| C-cell, Hyperplasia | | 1 | 2 | | | | 1 | | 1 | | 4 1.3 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|-------|
| Epididymis | + | + | + | + | + | + | + | + | + | + | 10 |
| Hypospermia | | | | | | 4 | | | | | 1 4.0 |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Chronic Active | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 3 | | 9 1.9 |
| Acinus, Hyperplasia | | | | | | | | | | | 1 4.0 |
| Duct, Ectasia | 4 | | | | | | | | | | 4 2.8 |
| Prostate | + | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Suppurative | | 1 | | 2 | | | 1 | 1 | | | 4 1.3 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | 10 |
| Testes | + | + | + | + | + | + | + | + | + | + | 10 |
| Interstitial Cell, Hyperplasia | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 3 | | 9 1.8 |

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MALE
0.2 Furan 60 wk | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|--|
| | | 4 | 4 | 4 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | ANIMAL ID | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | |
| | | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 3 | 4 | 4 | |
| | | 3 | 3 | 5 | 9 | 0 | 5 | 6 | 5 | 1 | 2 | |
| | | 4 | 5 | 3 | 4 | 7 | 7 | 0 | 8 | 7 | 0 | |
| | | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | |
| * TOTALS | | | | | | | | | | | | |
| Seminiferous Tubule, Degeneration | | | | | | | | | | | | |
| 3 3.0 | | | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|-------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | 1 2.0 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | 1 2.0 |
| Pigmentation | | | | | | | | | | | | 1 3.0 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Atrophy | 4 | 4 | 4 | | 4 | 4 | 4 | | 4 | 4 | | 8 4.0 |
| Necrosis | | | | | | | | | | | | 1 4.0 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|-------|
| Mammary Gland | + | + | + | M | + | + | + | + | + | + | + | 9 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Fibrosis | | | | | | | | | | | | 1 3.0 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Skeletal Muscle | | | | | | | | | | | | 1 |

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MALE
0.2 Furan 60 wk | DAY ON TEST
ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|---|--------------------------|---------------------|---|---|---|---|---|---|---|---|---|-------|
| | | 4 | 4 | 4 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | |
| | | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 3 | 4 | |
| | | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 3 | 4 | 4 | |
| | | 3 | 3 | 5 | 9 | 0 | 5 | 6 | 5 | 1 | 2 | |
| | | 4 | 5 | 3 | 4 | 7 | 7 | 0 | 8 | 7 | 0 | |
| | | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | |
| | | * TOTALS | | | | | | | | | | |
| Fibrosis | | 4 | | | | | | | | | | |
| NERVOUS SYSTEM | | | | | | | | | | | | |
| Brain, Brain Stem | | + + + + + + + + + + | | | | | | | | | | 10 |
| Brain, Cerebellum | | + + + + + + + + + + | | | | | | | | | | 10 |
| Brain, Cerebrum | | + + + + + + + + + + | | | | | | | | | | 10 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | |
| Lung | | + + + + + + + + + + | | | | | | | | | | 10 |
| Pleura, Inflammation, Suppurative | | | | | | | | | | | | 1 4.0 |
| Pleura, Necrosis | | | | | | | | | | | | 1 4.0 |
| Nose | | + + + + + + + + + + | | | | | | | | | | 10 |
| Goblet Cell, Hyperplasia | | | | | | | | | | | | 1 2.0 |
| Trachea | | + + + + + + + + + + | | | | | | | | | | 10 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | |
| Eye | | + + + + + + + + + + | | | | | | | | | | 10 |
| Harderian Gland | | + + + + + + + + + + | | | | | | | | | | 10 |
| URINARY SYSTEM | | | | | | | | | | | | |
| Kidney | | + + + + + + + + + + | | | | | | | | | | 10 |
| Hydronephrosis | | 3 | | | | | | | | | | 2 2.5 |

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MALE
0.2 Furan 60 wk | ANIMAL ID | DAY ON TEST | | | | | | | | | | | | | |
|--|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|----------|--|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 4 | 4 | 4 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | |
| | | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| | | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | | | |
| | | 0 | 0 | 0 | 1 | 2 | 2 | 2 | 3 | 4 | 4 | 4 | | | |
| | | 3 | 3 | 5 | 9 | 0 | 5 | 6 | 5 | 1 | 2 | | | | |
| | | 4 | 5 | 3 | 4 | 7 | 7 | 0 | 8 | 7 | 0 | | | | |
| | | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | | | | |
| | | | | | | | | | | | | | | * TOTALS | |
| Nephropathy | | 2 | 1 | 1 | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 9 2.2 | |
| Urinary Bladder | | + | + | + | + | + | + | + | + | + | + | + | + | 10 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

M .. Missing tissue

X .. Lesion present

A .. Autolysis precludes evaluation

I .. Insufficient tissue

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10119 - 01

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 06/03/2014

Test Type: CHRONIC

Furan

Time Report Requested: 08:43:51

Route: GAVAGE

CAS Number: 110-00-9

First Dose M/F: 09/07/09 / NA

Species/Strain: RATS/F 344/NCTR

Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
0.44 Furan 60 wk | DAY ON TEST | | | | | | | | | | | | |
|---|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|--|
| | | 0
4
2
0 | 0
4
2
0 | |
| ANIMAL ID | | 0
0
3
0
1 | 0
0
4
8
7 | 0
1
9
7
2 | 0
2
2
2
5 | 0
2
6
5
2 | 0
3
5
9
1 | 0
3
9
2
1 | 0
3
9
2
1 | 0
4
2
2
2 | 0
4
2
2
2 | * TOTALS | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Cholangiolipofibrosis | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | | 10 1.1 |
| Granuloma | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | | 8 1.6 |
| Mixed Cell Focus | X | | | | | | | | | | | | 1 |
| Vacuolization Cytoplasmic | | 1 | | 1 | 1 | | | | | | | | 5 1.4 |
| Bile Duct, Biliary Tract, Hyperplasia | | | | | | | | | | | | | 2 1.0 |
| Bile Duct, Subcapsular, Hyperplasia | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | | | | 9 1.1 |
| Hepatocyte, Hypertrophy | 2 | 2 | | | | | 3 | | 2 | 2 | | | 5 2.2 |
| Hepatocyte, Necrosis | | | | | | | 2 | | | | | | 1 2.0 |
| Periportal, Cytoplasmic Alteration | | | | | | | 1 | | | | | | 1 1.0 |
| Subcapsular, Fibrosis | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | | | | 9 1.1 |
| Subcapsular, Inflammation, Chronic | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | | | | 9 1.1 |
| Subcapsular, Pigmentation | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | | | | 9 1.1 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

M .. Missing tissue

X .. Lesion present

A .. Autolysis precludes evaluation

I .. Insufficient tissue

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10119 - 01

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 06/03/2014

Test Type: CHRONIC

Furan

Time Report Requested: 08:43:51

Route: GAVAGE

CAS Number: 110-00-9

First Dose M/F: 09/07/09 / NA

Species/Strain: RATS/F 344/NCTR

Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
0.44 Furan 60 wk | DAY ON TEST | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|------------------|-----------------|
| | | 0
4
2
0 | 0
4
2
0 | |
| ANIMAL ID | | | | | | | | | | | | | * TOTALS |
| | 0
0
0
1
3
4
8
0
1 | 0
0
0
1
1
2
7
2
1 | 0
0
1
2
2
6
9
5
1 | 0
2
2
6
5
2
2
1
2 | 0
3
3
5
9
1
6
6
2 | 0
3
3
9
2
1
2
2
2 | 0
4
4
5
9
2
7
5
1 | 0
3
3
9
2
1
2
2
2 | 0
4
4
5
9
2
7
5
1 | 0
3
3
9
2
1
2
2
2 | 0
4
4
5
9
2
7
5
1 | | |
| Pancreas | + + + + + + + + + + | | | | | | | | | | | | 10 |
| Infiltration Cellular, Lymphocyte | 1 | | | | | | | | | | | | 1 1.0 |
| Acinus, Degeneration | 1 | | | | | | | | | | | | 3 1.7 |
| Salivary Glands | + + + + + + + + + + | | | | | | | | | | | | 10 |
| Stomach, Forestomach | + + + + + + + + + + | | | | | | | | | | | | 10 |
| Stomach, Glandular | + + + + + + + + + + | | | | | | | | | | | | 10 |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | |
| Blood Vessel | + + + + + + + + + + | | | | | | | | | | | | 10 |
| Heart | + + + + + + + + + + | | | | | | | | | | | | 10 |
| Cardiomyopathy | 1 1 2 1 1 1 1 2 2 3 | | | | | | | | | | | | 10 1.5 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | |
| Adrenal Cortex | + + + + + + + + + + | | | | | | | | | | | | 10 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | 1 2.0 |
| Adrenal Medulla | + + + + + + + + + + | | | | | | | | | | | | 10 |
| Islets, Pancreatic | + + + + + + + + + + | | | | | | | | | | | | 10 |
| Parathyroid Gland | + + + + + + + + + + | | | | | | | | | | | | 10 |
| Pituitary Gland | + + + + + + + + + + | | | | | | | | | | | | 10 |
| Pars Distalis, Cyst | X X | | | | | | | | | | | | 3 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

M .. Missing tissue

X .. Lesion present

A .. Autolysis precludes evaluation

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1-4 .. Lesion qualified as:

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2) Mild 4) Marked

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Furan

Time Report Requested: 08:43:51

Route: GAVAGE

CAS Number: 110-00-9

First Dose M/F: 09/07/09 / NA

Species/Strain: RATS/F 344/NCTR

Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
0.44 Furan 60 wk | DAY ON TEST | | | | | | | | | | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------|-------|
| | | 0
4
2
0 | | |
| ANIMAL ID | | | | | | | | | | | | | * TOTALS | |
| | 0
0
3
0
1 | 0
0
4
8
7 | 0
1
9
2
2 | 0
2
2
6
5 | 0
2
2
5
1 | 0
3
5
1
1 | 0
3
9
6
2 | 0
3
9
6
2 | 0
3
9
6
2 | 0
3
9
6
2 | 0
3
9
6
2 | 0
3
9
6
2 | | |
| Pars Distalis, Hyperplasia | | | | | | | | | | | | | 1 | 1 1.0 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | | 10 |
| C-cell, Hyperplasia | 2 | 2 | | 1 | | | | | | | | | 1 | 4 1.5 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Exfoliated Germ Cell | | | | | | 2 | | | | | | | 1 2.0 |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Fibrosis | | | | | | | | | | | | | 1 2.0 |
| Inflammation, Suppurative | | | | | | | 4 | | | | | | 3 4.0 |
| Inflammation, Chronic Active | 2 | 2 | 2 | 2 | 2 | | | | | | | | 7 2.1 |
| Acinus, Hyperplasia | | | | | | | | 3 | | | | | 1 3.0 |
| Duct, Ectasia | | | | | | | | 4 | 4 | | | | 5 3.8 |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Degeneration, Cystic | | | | | | | | | | | | | 1 1.0 |
| Inflammation, Suppurative | 2 | 2 | 2 | 3 | 1 | 1 | 2 | 1 | | | | | 8 1.8 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Interstitial Cell, Hyperplasia | 1 | 1 | | 2 | | 3 | 2 | 2 | 2 | | | | 7 1.9 |
| Seminiferous Tubule, Degeneration | | | | | | | 2 | | | | | | 1 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

M .. Missing tissue

X .. Lesion present

A .. Autolysis precludes evaluation

I .. Insufficient tissue

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10119 - 01
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/F 344/NCTR

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Furan
 CAS Number: 110-00-9

Date Report Requested: 06/03/2014
 Time Report Requested: 08:43:51
 First Dose M/F: 09/07/09 / NA
 Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
0.44 Furan 60 wk | DAY ON TEST | | | | | | | | | | | | |
|--|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|----------|
| | | 0
4
2
0 | |
| ANIMAL ID | | | | | | | | | | | | | * TOTALS |
| | 0
0
0
1
3
4
0
1 | 0
0
0
1
8
8
2
1 | 0
1
1
2
7
8
2
1 | 0
2
2
5
9
8
2
2 | 0
2
6
5
2
2
1
1 | 0
3
5
9
6
2
2
2 | 0
3
9
2
6
2
2
2 | 0
3
9
2
6
2
2
2 | 0
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9
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2 | 0
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6
2
2
2 | 0
3
9
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6
2
2
2 | 0
3
9
2
6
2
2
2 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | 1 2.0 |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | 1 3.0 |
| Sinus, Dilatation | | | | | | | | | | | | | 1 2.0 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | 1 2.0 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Pigmentation | | | | | | | | | | | | | 1 2.0 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Atrophy | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 10 3.8 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Galactocele | | | | | | | | | | | | | 1 |
| Alveolus, Dilatation | | | | | | | | | | | | | 1 2.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | 1 2.0 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | 10 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|----|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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 2) Mild 4) Marked

Experiment Number: 10119 - 01

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Test Type: CHRONIC

Furan

Time Report Requested: 08:43:51

Route: GAVAGE

CAS Number: 110-00-9

First Dose M/F: 09/07/09 / NA

Species/Strain: RATS/F 344/NCTR

Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
0.44 Furan 60 wk | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---|-------------|-----------------|---|---|---|---|---|---|---|---|---|
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | ANIMAL ID | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 |
| | | 3 | 4 | 8 | 7 | 9 | 2 | 6 | 5 | 9 | 2 |
| | | 0 | 8 | 2 | 2 | 2 | 5 | 2 | 1 | 6 | 2 |
| | | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 |
| | | * TOTALS | | | | | | | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|-------|
| Brain, Brain Stem
Compression | + | + | + | + | + | + | + | + | + | + | 10 |
| | | | | | | 4 | | | | | 1 4.0 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | 10 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | 10 |
| Brain, NOS | | | | | | | + | | | | 1 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | |
|---------|---|---|---|---|---|---|---|---|---|---|----|
| Lung | + | + | + | + | + | + | + | + | + | + | 10 |
| Nose | + | + | + | + | + | + | + | + | + | + | 10 |
| Trachea | + | + | + | + | + | + | + | + | + | + | 10 |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|----|
| Eye | + | + | + | + | + | + | + | + | + | + | 10 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | 10 |

URINARY SYSTEM

| | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|-----|
| Kidney
Nephropathy | + | + | + | + | + | + | + | + | + | + | 10 |
| | 2 | 3 | 3 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 2.5 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

M .. Missing tissue

X .. Lesion present

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Experiment Number: 10119 - 01

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Date Report Requested: 06/03/2014

Test Type: CHRONIC

Furan

Time Report Requested: 08:43:51

Route: GAVAGE

CAS Number: 110-00-9

First Dose M/F: 09/07/09 / NA

Species/Strain: RATS/F 344/NCTR

Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
0.44 Furan 60 wk | ANIMAL ID | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | |
|---|-----------|-----------------|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | | | | | | | | | | | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | | | | | | | | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | | | | |
| | | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | | | | | | | | | | | | | |
| | | 3 | 4 | 8 | 7 | 9 | 2 | 6 | 5 | 9 | 2 | | | | | | | | | | | | | |
| | | 0 | 8 | 2 | 2 | 2 | 5 | 2 | 1 | 6 | 2 | | | | | | | | | | | | | |
| | | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | | | | | | | | | | | | | |
| | | * TOTALS | | | | | | | | | | | | | | | | | | | | | | |
| | | Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | |
| + + + + + + + + + + + | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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Furan

Time Report Requested: 08:43:51

Route: GAVAGE

CAS Number: 110-00-9

First Dose M/F: 09/07/09 / NA

Species/Strain: RATS/F 344/NCTR

Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
0.92 Furan 60 wk | ANIMAL ID | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|---|-----------|-----------------|---|---|---|---|---|---|---|---|---|---|--|
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 4 | | |
| | | 1 | 7 | 7 | 8 | 0 | 8 | 2 | 4 | 9 | 0 | | |
| | | 4 | 0 | 8 | 0 | 6 | 7 | 0 | 3 | 0 | 4 | | |
| | | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | | |
| | | | | | | | | | | | | | |
| | | * TOTALS | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Cholangiofibrosis | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | | | 10 1.6 |
| Clear Cell Focus | | X | | | | | | | | | | | 1 |
| Granuloma | 2 | 2 | 2 | | 2 | | 1 | 2 | 1 | 2 | | | 8 1.8 |
| Mixed Cell Focus | | X | | X | | | X | | | | | | 3 |
| Vacuolization Cytoplasmic | 2 | 2 | 3 | | 2 | 2 | 2 | 2 | 2 | 2 | | | 9 2.1 |
| Bile Duct, Biliary Tract, Hyperplasia | | 1 | 1 | | | | 2 | | | | | | 3 1.3 |
| Bile Duct, Subcapsular, Hyperplasia | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | | | 10 1.5 |
| Hepatocyte, Hypertrophy | | 2 | 1 | 2 | | | | | | | | | 4 1.5 |
| Hepatocyte, Necrosis | 1 | | | | | | | | | | | | 1 1.0 |
| Oval Cell, Hyperplasia | | 2 | 1 | | 1 | | | | | | | | 3 1.3 |
| Periportal, Cytoplasmic Alteration | | 2 | 2 | 2 | 1 | 1 | 2 | 1 | | | | | 7 1.6 |
| Subcapsular, Fibrosis | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | | | 10 1.5 |
| Subcapsular, Inflammation, Chronic | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | | | 10 1.5 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

M .. Missing tissue

X .. Lesion present

A .. Autolysis precludes evaluation

I .. Insufficient tissue

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10119 - 01

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 06/03/2014

Test Type: CHRONIC

Furan

Time Report Requested: 08:43:51

Route: GAVAGE

CAS Number: 110-00-9

First Dose M/F: 09/07/09 / NA

Species/Strain: RATS/F 344/NCTR

Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
0.92 Furan 60 wk | ANIMAL ID | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|---|-----------|---------------------------|-----------------|---|---|---|---|---|---|---|---|---|--------|
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 3 | 4 | |
| | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 0 | |
| | | 1 | 7 | 7 | 8 | 0 | 8 | 2 | 4 | 9 | 0 | | |
| | | 4 | 0 | 8 | 0 | 6 | 7 | 0 | 3 | 0 | 4 | | |
| | | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | | |
| | | | * TOTALS | | | | | | | | | | |
| | | Subcapsular, Pigmentation | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 10 1.5 |
| Pancreas | | + + + + + + + + + + | | | | | | | | | | | 10 |
| Acinus, Degeneration | | 1 | | | | | | | | | | | 4 1.3 |
| Salivary Glands | | + + + + + + + + + + | | | | | | | | | | | 10 |
| Stomach, Forestomach | | + + + + + + + + + + | | | | | | | | | | | 10 |
| Stomach, Glandular | | + + + + + + + + + + | | | | | | | | | | | 10 |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | |
| Blood Vessel | | + + + + + + + + + + | | | | | | | | | | | 10 |
| Heart | | + + + + + + + + + + | | | | | | | | | | | 10 |
| Cardiomyopathy | | 1 3 2 2 1 2 2 1 2 | | | | | | | | | | | 9 1.8 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | |
| Adrenal Cortex | | + + + + + + + + + + | | | | | | | | | | | 10 |
| Adrenal Medulla | | + + + + + + + + + + | | | | | | | | | | | 10 |
| Islets, Pancreatic | | + + + + + + + + + + | | | | | | | | | | | 10 |
| Parathyroid Gland | | + + + + + + + + + + | | | | | | | | | | | 10 |
| Pituitary Gland | | + + + + + + + + + + | | | | | | | | | | | 10 |
| Pars Distalis, Cyst | | X X X X | | | | | | | | | | | 4 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

M .. Missing tissue

X .. Lesion present

A .. Autolysis precludes evaluation

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1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

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Experiment Number: 10119 - 01

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 06/03/2014

Test Type: CHRONIC

Furan

Time Report Requested: 08:43:51

Route: GAVAGE

CAS Number: 110-00-9

First Dose M/F: 09/07/09 / NA

Species/Strain: RATS/F 344/NCTR

Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
0.92 Furan 60 wk | ANIMAL ID | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
|---|-----------|----------------------------|----------|---|---|---|---|---|---|---|---|---|----|-----|
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 | 2 | 3 | 4 | | |
| | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 4 | 9 | 0 | | |
| | | 1 | 7 | 7 | 8 | 0 | 8 | 2 | 4 | 9 | 0 | | | |
| | | 4 | 0 | 8 | 0 | 6 | 7 | 0 | 3 | 0 | 4 | | | |
| | | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | | | |
| | | | * TOTALS | | | | | | | | | | | |
| | | Pars Distalis, Hyperplasia | 2 | 2 | 2 | 1 | | 1 | 2 | | | | 6 | 1.7 |
| Thyroid Gland | | + | + | + | + | + | + | + | + | + | + | | 10 | |
| Ultimobranchial Cyst | | X | | | | | | | | | | | 1 | |
| C-cell, Hyperplasia | | 2 | 2 | 1 | 1 | | 2 | 2 | | | | | 6 | 1.7 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|--|
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | | 10 | |
| Exfoliated Germ Cell | | | | | | 2 | | | 2 | 3 | | | 3 | 2.3 | |
| Hypospermia | | | | | 4 | | 3 | | 2 | | | | 3 | 3.0 | |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | + | | 10 | | |
| Inflammation, Suppurative | | | | | 2 | | | | 4 | 4 | | | 3 | 3.3 | |
| Inflammation, Chronic Active | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | | | | | 7 | 2.3 | |
| Duct, Ectasia | | | | 4 | | | | 4 | 4 | | | | 3 | 4.0 | |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | | 10 | | |
| Infiltration Cellular, Lymphocyte | | | | | | 1 | | | | | | | 1 | 1.0 | |
| Inflammation, Suppurative | | | | | 2 | | | 2 | | 1 | | | 3 | 1.7 | |
| Epithelium, Hyperplasia | | | | | | | | 1 | | | | | 1 | 1.0 | |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | | 10 | | |
| Inflammation, Suppurative | | | | | 3 | | | | | | | | 1 | 3.0 | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | | 10 | | |
| Interstitial Cell, Hyperplasia | 2 | 2 | 2 | 1 | 1 | 2 | | 2 | 2 | | | | 8 | 1.8 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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Furan

Time Report Requested: 08:43:51

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Species/Strain: RATS/F 344/NCTR

Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
0.92 Furan 60 wk | ANIMAL ID | DAY ON TEST | | | | | | | | | | | | * TOTALS |
|---|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|----------|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 4 | 0 | |
| | | 1 | 7 | 7 | 8 | 0 | 8 | 2 | 4 | 9 | 0 | 0 | 0 | |
| | | 4 | 0 | 8 | 0 | 6 | 7 | 0 | 3 | 0 | 4 | 0 | 4 | |
| | | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | |
| | | | | | | | | | | | | | | |

Seminiferous Tubule, Degeneration 4 4 4 3 4 3.8

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Pigmentation | | | | | | | | | | | | | 1 2.0 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Atrophy | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | | | 9 3.7 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Alveolus, Dilatation | | | | | | | | | | | | | 1 1.0 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Abscess | | | | | | | | | | | | | 1 4.0 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|----|

NERVOUS SYSTEM

| | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|----|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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Furan

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Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
0.92 Furan 60 wk | ANIMAL ID | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
|---|-----------|-----------------------|---------------|---|---|---|---|---|---|---|---|---|--|--|--|
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | | | |
| | | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 4 | | | | |
| | | 1 | 7 | 7 | 8 | 0 | 8 | 2 | 4 | 9 | 0 | | | | |
| | | 4 | 0 | 8 | 0 | 6 | 7 | 0 | 3 | 0 | 4 | | | | |
| | | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | | | | |
| | | * TOTALS | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| Brain, Cerebellum | | + + + + + + + + + + | 10 | | | | | | | | | | | | |
| Brain, Cerebrum | | + + + + + + + + + + | 10 | | | | | | | | | | | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | |
| Lung | | + + + + + + + + + + | 10 | | | | | | | | | | | | |
| Infiltration Cellular, Histiocyte | | 4 2 2 1 | 4 2.3 | | | | | | | | | | | | |
| Nose | | + + + + + + + + + + | 10 | | | | | | | | | | | | |
| Trachea | | + + + + + + + + + + | 10 | | | | | | | | | | | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | |
| Eye | | + + + + + + + + + + | 10 | | | | | | | | | | | | |
| Harderian Gland | | + + + + + + + + + + | 10 | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | | 2 | 1 2.0 | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | |
| Kidney | | + + + + + + + + + + | 10 | | | | | | | | | | | | |
| Nephropathy | | 2 3 2 3 4 2 3 3 3 2 3 | 10 2.7 | | | | | | | | | | | | |
| Urinary Bladder | | + + + + + + + + + + | 10 | | | | | | | | | | | | |

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Experiment Number: 10119 - 01

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Furan

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CAS Number: 110-00-9

First Dose M/F: 09/07/09 / NA

Species/Strain: RATS/F 344/NCTR

Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
2 Furan 60 wk | ANIMAL ID | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|---|-----------|-------------|---|---|---|---|---|---|---|---|---|--|
| | | 4 | 4 | 4 | 0 | 4 | 4 | 4 | 0 | 4 | 4 | |
| | | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 3 | 0 | 1 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | |
| | | 1 | 1 | 9 | 1 | 3 | 4 | 4 | 7 | 8 | 8 | |
| | | 8 | 9 | 3 | 5 | 2 | 1 | 3 | 6 | 6 | 9 | |
| | | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | |
| | | * TOTALS | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Periesophageal Tissue, Inflammation,
Suppurative | | | | | | | | | | | | 1 2.0 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | A | + | + | | 9 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | | 10 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | A | + | + | | 9 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | A | + | + | | 9 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | A | + | + | | 9 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | A | + | + | | 9 |
| Liver | + | + | + | + | + | + | + | + | + | + | | 10 |
| Angiectasis | | | | | | | | | | | | 2 4.0 |
| Cholangiofibrosis | 4 | | | | | | | 4 | | | | 8 2.1 |
| Clear Cell Focus | 2 | 1 | 2 | | 2 | 2 | 2 | | 3 | 3 | | 1 |
| Eosinophilic Focus | | | | | | | | X | | | | 1 |
| Granuloma | | | | | | | | X | | | | 8 2.4 |
| Mixed Cell Focus | 2 | 3 | 2 | | 2 | 2 | 3 | | X | X | | 6 |
| Tension Lipidosis | | | | | | | | X | | | | 2 3.0 |
| Vacuolization Cytoplasmic | 2 | 3 | 4 | 1 | | 3 | 3 | | 3 | 3 | | 8 2.8 |
| Bile Duct, Biliary Tract, Hyperplasia | 3 | 2 | 3 | | 4 | 2 | 2 | | 2 | 2 | | 8 2.5 |
| Bile Duct, Subcapsular, Hyperplasia | 1 | 2 | 2 | | 2 | 2 | 2 | | | | | 7 1.9 |
| Capsule, Fibrosis | | | | | 2 | | | | | | | 1 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

M .. Missing tissue

X .. Lesion present

A .. Autolysis precludes evaluation

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Lab: NCTR

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MALE
2 Furan 60 wk | DAY ON TEST | | | | | | | | | | | * TOTALS |
|---|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|----------|
| | | 0
4
2
0 | 0
4
2
0 | 0
0
1
1 | 0
4
2
0 | 0
0
3
3 | 0
3
4
1 | 0
3
7
2 | 0
3
8
1 | 0
3
8
2 | | |
| ANIMAL ID | | 0
0
1
8
1 | 0
0
1
9
9 | 0
2
3
5
2 | 0
2
3
5
2 | 0
2
3
5
2 | 0
3
4
1
2 | 0
3
7
6
1 | 0
3
8
6
1 | 0
3
8
9
2 | | |
| | | 3
3
2 | 3
3
1 | 2
1 | 1
3 | 3
2 | 2
2 | 1
2 | 1
2 | 1
2 | | 8 2.1 |
| Hepatocyte, Hypertrophy | | 3 | 3 | 2 | 2 | 1 | 3 | 2 | 1 | | | 1 1.0 |
| Hepatocyte, Necrosis | | | | | | | | | | | | 7 2.3 |
| Oval Cell, Hyperplasia | | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | | | 8 2.0 |
| Periportal, Cytoplasmic Alteration | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | | 7 1.9 |
| Subcapsular, Fibrosis | | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | | 7 1.9 |
| Subcapsular, Inflammation, Chronic | | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | | 7 1.9 |
| Subcapsular, Pigmentation | | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | | | 7 1.9 |
| Pancreas | | +
+ | | 10 |
| Acinus, Degeneration | | | | | 2 | | | | 2 | | | 2 2.0 |
| Salivary Glands | | +
+ | | 10 |
| Stomach, Forestomach | | +
+ | | 10 |
| Stomach, Glandular | | +
+ | | 10 |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | |
| Blood Vessel | | +
+ | | 10 |
| Adventitia, Hemorrhage | | | | | | | | | | | | 1 2.0 |
| Adventitia, Necrosis | | | | | | | | | | | | 1 2.0 |
| Heart | | +
2 | +
1 | +
1 | +
2 | +
1 | +
1 | +
1 | +
1 | +
2 | | 10 |
| Cardiomyopathy | | | | | | | | | | | | 8 1.4 |
| Pericardium, Foreign Body | | | | | | | | | | | | 1 |
| Pericardium, Inflammation, Suppurative | | | | | | | | | | | | 1 2.0 |
| Pericardium, Necrosis | | | | | | | | | | | | 1 4.0 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
2 Furan 60 wk | DAY ON TEST | | | | | | | | | | | | |
|---|-------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------|
| | | 0
4
2
0 | 0
4
2
0 | 0
0
1
1 | 0
4
2
0 | 0
4
2
0 | 0
0
3
3 | 0
3
4
1 | 0
7
6
2 | 0
8
6
1 | 0
8
6
1 | 0
4
2
1 | |
| ANIMAL ID | | | | | | | | | | | | | * TOTALS |
| | | | | | | | | | | | | | |
| Adrenal Cortex | | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Adrenal Medulla | | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Islets, Pancreatic | | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Parathyroid Gland | | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Pituitary Gland | | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Pars Distalis, Cyst | | X | | | | | | | | | | | 2 |
| Pars Distalis, Hyperplasia | | 1 | 1 | | 1 | | 1 | | | | | | 4 1.0 |
| Thyroid Gland | | + | + | + | + | + | + | + | + | + | + | + | 10 |
| C-cell, Hyperplasia | | | | | | 2 | | | 1 | | | | 2 1.5 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Suppurative | | | | | | | | | | | | | 1 4.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | 6 2.5 |
| Acinus, Hyperplasia | | | | | | | | | | | | | 1 3.0 |
| Prostate | + | + | + | + | + | + | + | + | + | + | + | + | 10 |
| Inflammation, Suppurative | 2 | 1 | | | 2 | | | | 1 | | | | 4 1.5 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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X .. Lesion present

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Experiment Number: 10119 - 01

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 06/03/2014

Test Type: CHRONIC

Furan

Time Report Requested: 08:43:51

Route: GAVAGE

CAS Number: 110-00-9

First Dose M/F: 09/07/09 / NA

Species/Strain: RATS/F 344/NCTR

Lab: NCTR

| FISCHER 344 RATS-NCTR RATS
MALE
2 Furan 60 wk | DAY ON TEST | | | | | | | | | | |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------|
| | | 0
4
2
0 | 0
4
2
0 | 0
0
1
1 | 0
4
2
0 | 0
4
2
0 | 0
0
3
3 | 0
0
7
8 | 0
0
8
9 | 0
0
1
1 | |
| ANIMAL ID | | | | | | | | | | | * TOTALS |
| | 0
0
1
1
8
1 | 0
0
9
3
9
1 | 0
2
1
5
3
2 | 0
2
3
5
4
1 | 0
3
4
2
1
2 | 0
3
4
2
1
2 | 0
3
7
6
6
1 | 0
8
8
6
6
1 | 0
8
8
6
9
2 | 0
8
8
6
9
2 | 10 |
| Seminal Vesicle | + + + + + + + + + + | | | | | | | | | | 10 |
| Testes | + + + + + + + + + + | | | | | | | | | | 10 |
| Interstitial Cell, Hyperplasia | 1 1 2 2 2 2 | | | | | | | | | | 7 1.6 |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | |
| Bone Marrow | + + + + + + + + + + | | | | | | | | | | 10 |
| Myeloid Cell, Hyperplasia | 2 | | | | | | | | | | 1 2.0 |
| Lymph Node, Mandibular | + + + + + + + + + + | | | | | | | | | | 10 |
| Hyperplasia, Lymphoid | 2 | | | | | | | | | | 1 2.0 |
| Lymph Node, Mesenteric | + + + + + + + + + + | | | | | | | | | | 10 |
| Hyperplasia, Lymphoid | 2 | | | | | | | | | | 1 2.0 |
| Spleen | + + + + + + + + + + | | | | | | | | | | 10 |
| Hematopoietic Cell Proliferation | 2 | | | | | | | | | | 1 2.0 |
| Capsule, Fibrosis | 2 | | | | | | | | | | 1 2.0 |
| Thymus | + + + + + + + + + + | | | | | | | | | | 10 |
| Atrophy | 3 3 4 4 4 4 4 | | | | | | | | | | 7 3.7 |
| Adventitia, Inflammation, Suppurative | 3 | | | | | | | | | | 1 3.0 |
| Adventitia, Necrosis | 3 | | | | | | | | | | 1 3.0 |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | |
| Mammary Gland | + + + + + + + + + + | | | | | | | | | | 10 |
| Skin | + + + + + + + + + + | | | | | | | | | | 10 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

M .. Missing tissue

X .. Lesion present

A .. Autolysis precludes evaluation

I .. Insufficient tissue

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

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| FISCHER 344 RATS-NCTR RATS
MALE
2 Furan 60 wk | DAY ON TEST
ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---|--------------------------|----------|---|---|---|---|---|---|---|---|-------|
| | | 4 | 4 | 4 | 0 | 4 | 4 | 4 | 0 | 4 | 4 |
| | | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 2 | 2 | 3 | 3 | 3 | 3 | |
| | | 1 | 1 | 9 | 1 | 3 | 4 | 4 | 7 | 8 | 8 |
| | | 8 | 9 | 3 | 5 | 2 | 1 | 3 | 6 | 6 | 9 |
| | | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 |
| | | * TOTALS | | | | | | | | | |
| Cyst Epithelial Inclusion | | X | | | | | | | | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | |
| Bone, Femur | | + | + | + | + | + | + | + | + | + | 10 |
| NERVOUS SYSTEM | | | | | | | | | | | |
| Brain, Brain Stem | | + | + | + | + | + | + | + | + | + | 10 |
| Brain, Cerebellum | | + | + | + | + | + | + | + | + | + | 10 |
| Brain, Cerebrum | | + | + | + | + | + | + | + | + | + | 10 |
| RESPIRATORY SYSTEM | | | | | | | | | | | |
| Lung | | + | + | + | + | + | + | + | + | + | 10 |
| Congestion | | | | | | | | | | | 1 4.0 |
| Infiltration Cellular, Histiocyte | | 1 | 1 | | | | | | | | 2 1.0 |
| Pleura, Foreign Body | | | | | | | | | | | 1 |
| Pleura, Inflammation, Suppurative | | | | | | | | | | | 1 4.0 |
| Pleura, Necrosis | | | | | | | | | | | 1 4.0 |
| Nose | | + | + | + | + | + | + | + | + | + | 10 |
| Trachea | | + | + | + | + | + | + | + | + | + | 10 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | |
| Eye | | + | + | + | + | + | + | + | + | + | 10 |

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| FISCHER 344 RATS-NCTR RATS
MALE
2 Furan 60 wk | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|----------|
| | | 4 | 4 | 4 | 0 | 4 | 4 | 4 | 0 | 4 | 4 | |
| | ANIMAL ID | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 3 | 0 | 1 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | |
| | | 1 | 1 | 9 | 1 | 3 | 4 | 4 | 7 | 8 | 8 | |
| | | 8 | 9 | 3 | 5 | 2 | 1 | 3 | 6 | 6 | 9 | |
| | | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | |
| | | | | | | | | | | | | * TOTALS |
| Harderian Gland | | + | + | + | + | + | + | + | + | + | + | 10 |
| Infiltration Cellular, Lymphocyte | | | 2 | | | | 1 | | | 1 | | 3 1.3 |
| URINARY SYSTEM | | | | | | | | | | | | |
| Kidney | | + | + | + | + | + | + | + | + | + | + | 10 |
| Hydronephrosis | | | | | 1 | 1 | | | | 2 | | 3 1.3 |
| Nephropathy | | 2 | 3 | 3 | | 2 | 3 | 2 | | 3 | 3 | 8 2.6 |
| Urinary Bladder | | + | + | + | + | + | + | + | + | + | + | 10 |
| Hemorrhage | | | | | 3 | | | | | | | 1 3.0 |
| Lumen, Dilatation | | | | | 4 | | | | | | | 1 4.0 |

*** END OF REPORT ***

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